Work Ord				Page 1										
Item ID: Revision ID:	D412-758-01	15 Mounted GPS Receive	Cimbal Mount	Accept		*N90)) (040	100	ገ*	Setup	Start Stop	IV	S1* S2*
Item Name: Start Date:	11/20/12	Start Qty: 1.00	*1*			Cust It	am IT	۸.					IN.	
Required Date:		Req'd Qty: 1.00	*1*			Cust it).						
Reference:		1 27	1									~		
Approvals:	Process Pla	in: MLJ	Date: \2-\1-\	Tooling مر	g:		Da	te:			Run	Start	*N	R1*
	QC:		Date:	SPC (Y	// N):		Da	te:				Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set Run	Up/ Hours	Tool	ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr			,									
IIN-D412-758	D				DAS							MC	51	2-12-0
*1 \\ \n \\ \text{DC} \\ \text{Document Control}		DOCUMENT CONTR Memo Photocopy	OL bluefile & type labels per l	0.00 0.00 PPP D412-758	15, 12	,				<u> </u>	<u> </u>			
,		Pick Kit		0.00										
110 Packaging Packaging		Memo		0.00						X			12	12-6
115 * 445 *		QC4- 100% Inspect kit	is for completeness	0.00	DAS 15)				
QC Quality Control		Memo		0.00	2/120	7								

										DQA:	Date:	
NCR:	Yes / No)			WORK ORDER NON-	CO	NFORM	MANCE / UP	DATE			•
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Work Orde	or.				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
WOIN OIG					Rework	7	İ	Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	No.				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	1	1	noforming	Finishing	4	re/Packaging	Other
NCR N	No				Work Order Update]		Large Fab	Composite]	Supplier	
Root				Descri	l ption of work order update	T	Initial	Ac	tion	Sign &		
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						AUI	LT CATE	GORY				
Landir	ng Gear				General	_	1			٦	Γ	7
	Bendin	_		ļ	Bend	_	Grain			Ovalized		Pressure/Forced
	 -	Not Conce	ntric to C	/S	BOM/Route	\vdash	Hardwa		_	Over/Under		Temperature/Cure
	Cracks				Broken/Damaged		4	on Incomplete		Part Incorred		Weld
,		d/Crimped	-		Burrs	<u></u>	-	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	_	Mainte			Part Moved		
	Heat Tr				Countersink	_	Mislabe	led	<u> </u>	Positioned V		٦
		on Strip in	Tube	<u> </u>	Cut Too Short		Misread Offset			Power Loss/	Surge	Other
İ	Ripples	in Bend			Drill Holes		Offset					

Out of Calibration

Outside Dimensions

Out of Sequence

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

93212

Page 2

November-15-12 9:26:24 AM *N900040100* D412-758-015 Accept Setup Start Item ID: **Revision ID:** GPSMAP Top Mounted GPS Receiver Gimbal Mount Item Name: Start Qty: 1.00 **Start Date:** 11/20/12 **Cust Item ID:** Required Date: 11/30/12 Req'd Qty: 1.00 **Customer:** Reference: Run Process Plan: **Tooling:** Date: Date: Approvals: Stop Date: SPC (Y/N): Date: Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Sequence ID/ Operation Code Qty Qty Number Stamp **Work Center ID** Description Run Hours 0.00 120 Packaging *120* 0.00 Packaging Identify and pack for shipping as per PPP D412-758-015 Packaging Location: PPP Rev:

130

QC21- Final Inspection - Work Order Release

0.00

130

QC

Memo

0.00

Quality Control

MLJ 12-12-07 MJ (2-12-09

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Engineering Rework Skid-tube Crosstube Water Jet Part No. Quality Machining Small Fab Prod. Eng. Coor. Scrap Other **Thermoforming** Finishing Rec/Store/Packaging Use-as-is NCR No. Supplier Work Order Update Large Fab Composite Description of work order update Initial Action Sign & Root Chief Eng Qty or Non-conformance Description Date Verification QC Inspector Cause Date Step Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Bending Bend Grain Ovalized Pressure/Forced BOM/Route Hardware Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Broken/Damaged Weld Cracks Inspection Incomplete Part Incorrect Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Contamination Maintenance Part Moved Heat Treat Countersink Mislabeled Positioned Wrong Misread Other Inspection Strip in Tube Cut Too Short Power Loss/Surge Offset Drill Holes Ripples in Bend

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Work Order ID:

93212

Parent Item:

D412-758-015

Parent Item Name:

GPSMAP Top Mounted GPS Receiver Gimbal Mount

Start Date: 11/20/12

Required Date: 11/30/12

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP rev:A 10.06.21 new issue DD verified by:EC

IPP REV:B 12.10.24 ECN 12-669

Component Item ID/ tem Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN525-10R9 Screw	3 √	Purchased	No			110	Each	82.0000	3	3	80.		N
				Location		Loc Qty	L	oc Code					
				ST343		82)			
	C-			122	378	82				5 <u>k</u> _			
O3531-041 Sracket Assembly	m>	Manufactured	No	,		110	Each	0.0000	1		3924	140	Sp
)2464 . /4 Seal	SM	Manufactured	No			110	f	548.8706	1.05	1.10526	532 SP		S
cut Q 6.6" la				Location		Loc Qty	L	oc Code					•
				ST403		548.8706							
att spa	to Perluit			618	78	83.6406				1. ~ >	(1.00		
, _				835	43	465.23				1050	639.		
03525-1 (lacard		Manufactured	No			110	Each	3.0000	1	15) - -	NAMES OF STREET STREET, STREET	SW
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				ST055		3							
<i>,</i>				813	18	3				<u> </u>			
3645-1		Manufactured	No	=======================================		110	Each	12.0000	4 _	~ ~ 4			
Vasher										M.	June	· · · · · · · · · · · · · · · · · · ·	
2M>				Location		Loc Oty	Lo	oc Code					
				ST061		12							
÷				350	25	12			_4	<u> </u>			\Box
N525-10R10		Purchased	No			110	Each	182.0000	4 (~\A	17 7		
crew									<u>~</u>	ω 10	-10-F	-	
5m2				Location		Loc Qty	Lo	oc Code	_	•			
	* * *			ST345		182							
				135		82			_4	<u> </u>			
				193:	56	100							

WORK ORDER NON-CONFORMANCE / UPDATE NCR: Yes / No QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Engineering Skid-tube Crosstube Water Jet Rework Quality Part No. Machining Small Fab Prod. Eng. Coor. Scrap Other Finishing Rec/Store/Packaging Use-as-is Thermoforming Composite Supplier NCR No. Work Order Update Large Fab Description of work order update Initial Action Sign & Root Verification QC Inspector Cause Date Step Qty or Non-conformance Chief Eng Description Date Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Pressure/Forced Bending Bend Grain Ovalized Temperature/Cure Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Broken/Damaged Weld Part Incorrect Cracks Inspection Incomplete Part Lost/Missing Wrong Stock Pulled Crushed/Crimped. Burrs Instructions Incomplete/Unclear Cuffs Contamination Maintenance Part Moved Countersink Mislabeled Positioned Wrong **Heat Treat** Other Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge **Drill Holes** Offset Ripples in Bend **Torque Waves in Extrusion** Drawing Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish Folio November-15-12 9:26:23 AM

Parent Item:	93212 D412-758-015	. Long B		134	·			•	Date: 11/20/12 Qty: 1.00	Required Date: 11/3	4(*
Parent Item Name:	GPSMAP Top Mou			Mount						Required Qty: 1.00	- 1231
NAS1149DN632J Washer		Purchased	No			110	Each	91.0000	4	M123900	SP
wasiei Si	mo			<u>Location</u> 298	122441	<u>Loc Oty</u> 77 77		Loc Code			70
				ST298		14				_	
					118428	14				_	Á
NAS1149D0363J Washer		Purchased	No			110	Each	3,939.0000	7	⁷ Q .	ST.
				Location	<u>1</u>	Loc Qty		Loc Code		01	
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١١٦	1				123248	442				_	
					123355	598				_	
				ST297		2788					
					122378	2788			$7\times$	∕	
				ST298		111				_	
					117601	61					
					119537	33 17				 · · ·	
ACC 10 10 10 10 C		- 1 1	No		120308	110	Each	331.0000	4		
MS21042L06		Purchased	No			110	Each	331.0000	•	5 0.	341
Nut TA				Location	·	Loc Qty		Loc Code		- O(
•				315		258					
					122441	258			4x		
				ST317		73				_	
	•				122151	73			 		Ó
MS24693-S29 Screw		Purchased	No			110	Each	56.0000	4	SP12-12-	7.
· < P				Location	1	Loc Qty		Loc Code			
Jri				ST288	-	56					
				2.200	103915	56			2/1/	-	

NCR: Y	es / No				WORK ORDER NON-O	CON	IFORM	AANCE / UPDATE					
								•		QA Closed:	D	ate:	
Work Orde	er:				DISPOSITION					PARTMENT/			
Part N	0				Rework Scrap Use-as-is		ľ	Skid-tube Crosstub Machining Small Fa noforming Finishir	ıb	4	Water Je d. Eng. Coor e/Packaging	\Box	Engineering Quality Other
NCR N	lo				Work Order Update]		Large Fab Composit	~ —	1100/3101	Supplie	_	
Root				Descri	ption of work order update	lr	nitial	Action		Sign &			
Cause	Date	Step	Qty	,	or Non-conformance	Chi	ef Eng	Description		Date	Verification	on	QC Inspector
Doc/Data													
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						AULT	CATE	GORY					
Landin	g Gear				General				_	7	•		
-	Bending				Bend		Grain		<u> </u>	Ovalized			Pressure/Forced
	Centre No	ot Concer	ntric to	o/s	BOM/Route	\vdash	Hardwa			Over/Under		\vdash	Temperature/Cure
<u> </u>	Cracks			<u> </u>	Broken/Damaged	-	•	on Incomplete	ļ	Part Incorred			Weld
<u> </u>	Crushed/0	Crimped.		<u> </u>	Burrs	_		ons Incomplete/Unclear	_	Part Lost/Mi	ssing		Wrong Stock Pulled
_	Cuffs			<u> </u>	Contamination	\vdash	Mainte			Part Moved			
	Heat Trea			<u> </u>	Countersink	-	Mislabe		_	Positioned W	-		
	Inspection	,	Tube	\vdash	Cut Too Short	-	Misread		L	Power Loss/	Surge		Other
	Ripples in				Drill Holes	\vdash	Offset						
	Torque W	aves in E	xtrusio	1	Drawing	1 (Out of C	alibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

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November-15-12 9:26:23 AM

Work Order ID: Parent Item: Parent Item Name:	93212 D412-758-015 GPSMAP Top Mod	unted GPS Receiver G	imbal	Mount			and the second s	ate: 11/20/12 aty: 1.00	Required Date: 11/30/12 Required Qty: 1.00
RAM-B-201U-A Socket Arm, 1.75"	5m/	Purchased	No	Location	110 <u>Loc Qty</u>	Each	8.0000 Loc Code	2	F - 1
	<i></i>			ST391 123342	8	Б. 1			
RAM-B-202U Round Plate Mount, Sing	gle 1" Ball	Purchased	No	<u>Location</u>	110 Loc Qty	Each	8.0000 <u>Loc Code</u>	$\frac{1}{2}$	
5M-	J		No	ST391 123342	8 8 110	Each	8.0000	-2x	
RAM-B-217U Round Plate Mount, Dua	al 1" Ball	Purchased	140	Location	Loc Qty	Euch	Loc Code		1213191. Sp
MS21042L3		Purchased	No	ST382 120639	8 8 110	Each	2,276.0000	3 3	
Nut Sys.		. 0.0		Location	Loc Oty		Loc Code	CHETWOOD AND LIGHTED	2012-13-1
				316 122452 ST300	541 541 225				
				117885 119017 119075	32 55 138				
				ST314 123265 ST317	1189 1189 321			3×	
				122141	321				

NCR: Y	es / No				WORK ORDER NON-	CON	IFORN	MANCE / UP	DATE			
										QA Closed:	Date:	e
Work Orde	r·				DISPOSITION				AGAINST D	DEPARTMENT,	PROCESS	
Part N					Rework Scrap			Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet	Engineering Quality
NCR N	0				Use-as-is Work Order Update			noforming Large Fab	Finishing Composite	Rec/Stor	Other	
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance		nitial ief Eng		tion cription	Sign & Date	Verification	QC Inspector
Ooc/Data quip/Tooling Operator Material Setup Other Process Supplier Fraining Unapproved												
						AUL	T CATE	GORY				
Landin	ding Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend			General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instructi Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/ nance led	'Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/	st ssing vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
1	Torque W	aves in E	xtrusior	١	Drawing	1 1	Drawing Out of Calibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

DART AEROSPACE LTD.

REFERENCE ONLY



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5.0 PARTS LIST

QTY -011	QTY -013	QTY_ \(-015	Part Number	Description
Х			D412-758-011	Bottom Mounted GPS Receiver Gimbal Mount
	Х		D412-758-013	Top Mounted GPS Receiver Gimbal Mount
		Х	D412-758-015	GPSMAP Top Mounted GPS Receiver Gimbal Mount
1			D3514-041	Bottom Mounted Gimbal Assembly
	1		D3514-043	Top Mounted Gimbal Assembly
		0	D3531=041=======	=BracketrAssy:==
				· · · · · · · · · · · · · · · · · · ·
	2	_2_	D2464-0066	=Neoprene:Seal====
1	1	~1	D3525-1	=Placard=====
_ 1			D3527-1	Support Arm
1			D3530-1	Base Plate
1			D3530-3	Mounting Plate
1	1		D3534-1	Doubler
	4	-4=	=D3645=1===================================	=Washer==
		-3	=AN525=10R9=======	=Screw=
	4	€4=	=AN525-10R10	-Screw-
3			AN526-632R7	Screw (or MS35206-229)
3		4-	=NAS1149DN632J	EWasher-(Alternate:p/n-AN960JD6)_
2	4	-7:	=NAS1149D0363J	=Washer:(Alternate-p/n-AN960JD10)
3		6 4=	WICE TO IZZOO	-Nut
1		_ €3≔	-MS21042L-3	=Nut====
4	4		MS24693-S27	Screw
1			MS27039-1-09	Screw
		64=	FMS24693-S29	-Screw-
			FRAM:B:201U:A	Socket-Arm,=1=75"
		-2=	=RAM=B=202U======	-Round-Plate:Mount; Single-1" Ball
		1	-RAM-B-217U	Round Plate Mount, Dual 12 Ball